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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,867	02/19/2004	Albert R. Harvey	2507-5732.2US (21806-US-0	7545

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EXAMINER	
NUTTER, NATHAN M	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/783,867	HARVEY ET AL.	
	Examiner	Art Unit	
	Nathan M. Nutter	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *45-76* is/are pending in the application.

4a) Of the above claim(s) *62-76* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *45-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 45-61, in the reply filed on 22 March 2006 is acknowledged.

Claim Interpretations

The claims recite an apparatus that comprises a product, being a "shear ply" which is defined in the claims as being "a rubber component cured from a precursor composition." The claim recitations then define what is included in the composition. The only constituent to which patentability may be ascribed would be in the composition of the "shear ply" and not to any arrangement thereof in a rocket motor since there are insufficient details and disclosure to show any such construction. As such, the claims will be viewed in this context, with the patentable subject matter being dictated by the composition. As such, identically taught compositions that exhibit the desired properties of "sufficient flexion, strength, and high-temperature properties," as disclosed herein at paragraphs [0008] et al., will be deemed to be usable. The references to Kinoshita et al (US 6,132,328) and Onaka et al (US 6,240,993) are cited to show the conventionality of the resin blends, as disclosed and claimed herein.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 45-61 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no disclosure to teach the "rocket motor assembly," as herein recited and claimed. No guidance is given as to what the "rocket motor assembly" may comprise, or even how it is made. The disclosure is drawn to a composition that may be used in "high temperature shear ply applications," paragraph [0002]. Nothing specific is shown wherein the assembly of a rocket motor is taught. As such, the artisan would be required to proceed under the undue burden of experimentation to determine what is being claimed.

Claims 58 and 59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitations as to hydrogenation saturation are not shown in the Specification or claims, as originally filed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 45-61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of the "rocket motor assembly," is not clear as to its proper metes and bounds. No guidance is given as to what the "rocket motor assembly" may comprise, or even how it is made, and, as such, the claims are deemed to be vague and confusing. Nothing is provided as to the "shear ply interposed between a rocket motor case and a skirt" as to what is being claimed.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 45-56 and 58-61 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No.

7,012,107 (Harvey et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the compositions are essentially identical, and are claimed for use in a rocket motor assembly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 45-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonen et al (US 5,860,883), Onaka et al (US 6,240,993), Morris et al (US 6,352,488), Billups (US 6,443,866) or Nagata et al (US 6,739,854), all newly cited.

Each of the references to Jonen et al (US 5,860,883), Kinoshita et al (US 6,132,328), Onaka et al (US 6,240,993), Morris et al (US 6,352,488), Billups (US 6,443,866) and Nagata et al (US 6,739,854) teaches the manufacture of power transmission belts that may comprise a first hydrogenated nitrile conjugated-diene copolymer modified by a metal salt unsaturated carboxylic acid ester, a second hydrogenated nitrile conjugated-diene copolymer and a curing agent, as recited and claimed herein. The constituents are shown to be conventional with the final product possessing "flexion, strength, and high-temperature properties" as required for power transmission belts.

The reference to Jonen et al (US 5,860,883) shows the resin blend of a first modified hydrogenated nitrile rubber with a second hydrogenated nitrile rubber at

column 2 (lines 17-64), column 3 (lines 33-39) and column 6 (lines 13-31). The curing agent, including the peroxide of claim 55, is also shown at column 8 (lines 47-57). The choice of the nitrile rubber constituents, whether it be acrylonitrile or methacrylonitrile or particular diene, is not shown to be critical since all of these constituents are conventional and known. The metal salt carboxylic acid esters employed are taught at column 6 (lines 32-43) to include those recited and claimed. the fibers employed are shown at column 9 (lines 36-48).

The reference to Morris et al (US 6,352,488) shows the contemplated blend at column 2 (lines 56-65) and column 4 (lines 3-10). The peroxides employed are taught at column 3 (lines 44-65). The modified nitrile rubber is shown at column 3 (lines 12-26). Fibers may be employed though not those specifically recited in claims 60 and 61. Note column 3 (lines 44-65).

The reference to Billups (US 6,443,866) teaches the claimed blend at column 2 (lines 31-41) and the curing agent at column 2 (lines 44-64).

The patent to Nagata et al (US 6,739,854) shows the contemplated combination at column 4 (lines 54-60). A reinforcing fiber may be added at column 5 (lines 8 et seq.).

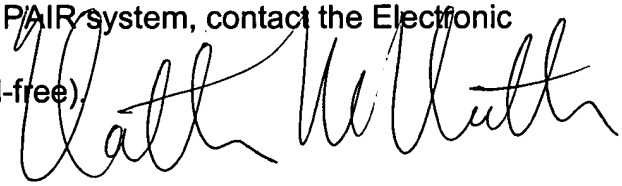
The references alone and collectively show the blend of resins and the various aspects of these compositions as including those parameters as recited and herein claimed. Though the references are not drawn to the concept of a rocket motor assembly, per se, they are drawn to compositions suitable for use as the shear ply of a motor assembly, as disclosed and claimed herein. as such, the instantly claimed

invention would have been obvious to a skilled artisan at the time the invention was made.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn

10 May 2006